

1 36. A consistent method of executing simultaneous operations on  
2 a linked data structure having at least one element, the method  
3 comprising the steps of:

4 performing any first phase operation task of each of the  
5 simultaneous operations in a first phase using  
6 parallel processes;  
7 developing a set of serial operations during the first  
8 phase; and  
9 performing any second phase operation task of each of the  
10 simultaneous operations in a second phase, the second  
11 phase operation task including at least one of the set  
12 of serial operations.

13 37. The method of claim 36 wherein at least one of the  
14 simultaneous operations includes an element insertion operation,  
15 the first phase operation task of the element insertion  
16 operation being performed on an unlocked portion of the linked  
17 data structure.

1 38. The method of claim 36 wherein at least one of the  
2 simultaneous operations includes an element deletion operation,  
3 the second phase operation task of the element deletion  
4 operation being performed independently of navigation of the  
5 linked data structure.

1 39. The method of claim 36 wherein the first phase operation  
2 tasks are asynchronous and use existing links to navigate the  
3 linked data structure.

1 40. The method of claim 36 wherein the first phase operation  
2 tasks of more than one of the simultaneous operations are  
3 completed before the second phase of any of the simultaneous  
4 operations is initiated.